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Farm Mobilization FACT SHEET

CONTROL LIVESTOCK PESTS FOR MORE MEAT, MILK, EGGS and FIBER

Livestock pests cost the Nation an annual loss estimated at over half a billion dollars. Farmers and the Nation as a whole bear the brunt of this loss in wasted feed, damaged hides, and both lowered quality and reduced output in such essential animal products as meat, milk, eggs, wool, and leather.

Flies cut deeply into beef and milk production. Insects keep pastured animals from grazing adequately when feeding costs normally are lowest. Cattle grubs do much damage to hides and may also reduce output of beef and milk. Ticks, lice, screw-worms, and sheep ticks take an immense toll in unproduced meat and fibers which should go for food and clothing. Infested animals are "hard keepers" and cannot produce good quality meat.

Fortunately most of these losses can be reduced or eliminated. Individual farmers can do much to protect their own livestock but community cooperation can do even more. United action makes for better and thriftier control of sheep ticks, lice, screw-worms, cattle grubs and other pests.

To achieve these objectives, farmers and ranchers must know what insects attack animals, what insecticides to use, the correct formula, and methods of application. County agents, entomologists, veterinarians, and other specialists can render important service in providing information and leadership in programs to get the more harmful livestock pests under control.

This fact sheet presents basic, up-to-date control measures as source material for Extension workers and others who write and broadcast information for farmers. Farmers should be advised to consult their county agent, other extension specialists, state entomologists or veterinarians, or the publications listed on page 4.

TICKS

Toxaphene sprays of 0.5 percent concentration give immediate and lasting effect on the lone star, winter, Gulf Coast, and spinose ear ticks. Sprays combining 0.5 percent DDT and .025 percent gamma benzine hexachloride are also effective. Neither are recommended for dairy cattle, however.

Except for the spinose ear tick, treat animals thoroughly on all parts of their bodies. For the Gulf Coast ear tick, treat especially the ears, head, and neck. For the spinose ear tick, use low pressure mist sprayer on the neck, head, and inside and outside of the ear. The spinose ear tick may also be controlled with a preparation containing 5 parts of 12 percent gamma BHC, 10 parts xylene and 85 parts steam-distilled pine oil.

SCREW-WORMS

Proper livestock management practices are important in controlling screw-worms. These include gentle handling of animals, avoiding surgical operations if possible when screw-worms are active, controlling ticks--especially ear ticks, inspecting animals at least twice a week, treating all wounds with recommended screw-wound remedies, and inspecting animals when shipped out and also when delivered from areas where screw-worms occur.

Observe infested animals regularly. Treat once each week with E.Q. Smear 335 or twice weekly with E.Q. Smear 62 or E.Q. Smear 82. If attack is severe, E.Q. 335 may have to be used twice during the first week. Apply ointment with a 1-inch paint brush, smearing well into center of wound and surrounding area.

FLEECE WORMS

Attack by larvae of blow flies, which occur on sheep in the crotch region where wool has become soiled, can usually be prevented by "tagging" or clipping wool on this part of the animal early in the spring. If maggots do occur, treat with 1 part E.Q. 335 screw-worm remedy to 9 parts water. Water solutions containing toxaphene or chlordane may also be used.

HOG LICE

The right insecticides correctly applied can practically eliminate lice from hogs. One thorough spraying of DDT, TDE, methoxychlor, toxaphene, or chlordane with a concentration of 0.5 to 0.75 percent will give excellent control. Lindane or benzene hexachloride (BHC) with a 0.05 or 0.06 percent concentration are equally effective. Dips with the same concentration as the sprays are even more effective than spraying.

CATTLE LICE

By thoroughly treating all parts of the animal, both sucking and biting lice on cattle are readily controlled. Hand sprayers may be used for small herds but power sprayers are most practical for larger herds. Dusts may be used when spraying is considered inadvisable during winter months.

For beef cattle, recommended sprays include DDT, TDE, methoxychlor, toxaphene, and chlordane. A thorough treatment with a 0.5 percent spray will usually give satisfactory control but second treatment may be necessary after 14 to 18 days. Lindane may be used as a spray on young cattle under a year old at concentrations of 0.03 percent, or for older cattle at a concentration up to 0.05 percent.

Chlordane should not be used at more than 3-month intervals since its safety for more frequent applications has not been established. Sprays or dips containing 1 pound of 5 percent rotenone for each 100 gallons of water are effective but two treatments will be required. Insecticides containing pyrethrum plus piperonyl butoxide are also effective against lice.

For controlling the tail louse, prevalent in Florida, use a concentration of 1- to 1.5-percent DDT or methoxychlor. Treat the switch of the tail as well as other parts of the body.

Powders containing 10 percent of DDT or methoxychlor, 1 percent lindane, or 1 percent rotenone may be used in dusts for controlling lice on beef cattle. The dust must be rubbed into the hair of the animal.

For dairy cows, rotenone, methoxychlor, lindane sprays and dusts, and the pyrethrum-piperonyl butoxide sprays are the only materials recommended to control lice. Apply in same concentrations and with same methods used on beef cattle.

CATTLE GRUBS

Apply 5 percent rotenone at 30-day intervals during grub season. Treat all cattle in an area. Spraying by power sprayer with 400-450 pounds' nozzle pressure gives fast and effective control. If such equipment is not available consult your experiment station about the use of lower pressure sprayers.

Completely saturate infested areas on the back of each animal. Use 7 1/2 pounds of the rotenone powder to 100 gallons of water. Dusts, dips, and washes may also be used but are slower and more laborious than spraying.

POULTRY PARASITES

For controlling lice on poultry, use sodium flouride--1 ounce to 1 gallon of water--as a dip or by the pinch or dusting method, or a 5 percent DDT dust. A 1-percent lindane solution with water or oil or nicotine sulfate may be applied to the roosts but these two may not be entirely effective on the head louse.

For common fowl mites and fowl ticks, birds should have clean housing and nests. Treat cracks, crevices, walls, and roosts of poultry houses with sprays of lindane of 0.25 to 0.5 percent concentration, creosote, carbolineum, kerosene, or 5 percent DDT. Do not use lindane on floors until its safety for birds is better known. Heavy treatment of litter with sulfur may control mites.

To control stick-tight fleas, apply a 5 percent DDT oil or emulsion spray or 2.5 percent wettable powder spray to floors of infested houses or grounds. A light application of a 5 to 10 percent DDT dust may also be used.

LICE AND SHEEP TICKS ON SHEEP AND GOATS

Dipping is the surest way to eliminate sheep ticks or lice from herds. For sheep ticks, dips may be made using 8 ounces derris or cube containing 5 percent rotenone for each 100 gallons of water. For lice, double the strength of this rotenone dip. For either sheep ticks or lice, dips may be made with 0.25 percent DDT, TDE, methoxychlor, toxaphene, chlordane or .025 percent of gamma benzine hexachloride.

Sprays using double the strength recommended for dips and thoroughly applied give excellent but not always complete control of these lice. In spraying treat animals soon after shearing or at least before the wool or mohair reaches a length of about 2 inches. Dusts containing 0.5 to 1 percent rotenone, rubbed well into wool, may also be used for sheep tick control.

FLIES ATTACKING LIVESTOCK

To control house flies, use screens and keep premises clean. Use residual sprays--which give lasting effect--on surfaces where flies rest except feed troughs and watering cups. Use only methoxychlor or lindane in dairy barns. Outside dairy barns and milk rooms, DDT or chlordane may also be used. For stable flies, follow suggestions for controlling the housefly and treat animals with pyrethrum sprays.

For horn flies, 0.5 percent DDT, methoxychlor, TDE, or toxaphene give good results on beef cattle. But only methoxychlor and pyrethrum sprays are recommended for dairy cows.

To supplement residual sprays, atomized mist sprays or aerosols of pyrethrum or allethrin are effective for house and stable flies.

Horse flies and deer flies are difficult to control although pyrethrum sprays give fairly good protection to cattle.

TO MAKE DESIRED STRENGTHS OF INSECTICIDES

Type and percentage of insecticide in concentrate	Amount of concentrate to add to water to make different percentage strengths in finished spray or dip			
	For 5 Gallons		For 100 Gallons	
Wettable powder	0.5 Percent	2.5 Percent	0.5 Percent	2.5 Percent
25%	13 oz.	----	16 lbs.	----
40%	8 oz.	2.5 lbs.	10 lbs.	50 lbs.
50%	6½ oz.	2.0 lbs.	8 lbs.	40 lbs.
75%	4½ oz.	1½ lbs.	5½ lbs.	27 lbs.
Emulsion				
25%	1½ cups	2 qts.	2 gals.	10 gals.
50%	3/4 cups	1 qt.	1 gal.	5 gals.

To make 0.25 percent strengths, use half the amount given above for the 0.5 percent strengths. To make a 5 percent spray use two times as much as given for the 2.5 percent strengths.

CAUTIONS

1. Take care not to harm yourself or animals with insecticide materials. If you spill concentrated insecticide on your skin, wash off quickly.

2. Avoid contaminating food and feed utensils, animal feeds, and water, also animal watering ponds, fish ponds or streams.

3. Avoid formulas which are too strong or concentrated, especially with lindane, BHC, toxaphene, and chlordane, and especially when treating calves.

4. Keep sprays well-mixed while spraying--by agitation on power equipment or shaking regularly with hand sprayers.

5. Stir dips thoroughly before using, especially if not used recently.

FOR FURTHER INFORMATION

Write to the Office of Information, U. S. Department of Agriculture, Washington 25, D. C.,for free copies of:

Cattle Grubs or Heel Flies, FB 1596--21 pages.
E.Q. 335 and Other Wound Treatments for Screw-Worm Control, E-813--6 pages.
Control of Hog Lice, Leaflet 316--4 pages.
Diseases and Parasites of Poultry, FB 1652--96 pages.
Control of Lice and Sheep Ticks on Sheep and Goats, Leaflet 308--11 pages.
House Fly Control, Leaflet 182--8 pages.
Fly Control on Dairy Cattle and in Dairy Barns, Leaflet 283--12 pages.
Horn Fly Control on Beef Cattle, Leaflet 291--6 pages.
Control of Lice on Cattle, Leaflet 319--11 pages.

Slidefilm--Cattle Grubs, or Heel Flies, No. 637. 60¢ single; 90¢ double. Order from Photo Lab. Inc., 3825 Georgia Ave., N.W., Washington 11, D. C.